REMARKS

The Office Action of July 5, 2005 has been reviewed and carefully considered.

Claims 1 through 19, including independent claims 1 and 10, remain pending in their originally-filed form.

Reconsideration of the patentability of the claims of the above-identified application, in view of the following remarks, is respectfully requested.

Claims 1 to 19 stand rejected in the Office Action under 35 U.S.C. §103(a) as allegedly unpatentable over the Feyereisen et al. published U.S. patent application (Publication No. 2003/0132860). Applicant submits that Feyereisen neither discloses nor renders obvious the claimed invention, and accordingly traverses the Examiner's Section 103(a) rejection.

The present invention discloses and claims a method and apparatus for facilitating user entry of a manually-adjustable data setting normally imaged in a predetermined size on an imaging display in an aircraft cockpit. Manual setting of the user-adjustable data may for example be carried out through rotation or other user manipulation of a knob or like control element or surface, or by user-effected direct keypad entry of the data setting value, or via user-effected finger or stylus contact with a touch control pad or surface of a flat panel display ("FPD") surface or face plate, or in any other manually-effected manner. In accordance with the invention, when the user-adjustable variable data setting is to be entered or adjusted or selected, the area on the FPD at which the data setting is imaged is predeterminately enlarged in size - relative to its original, normal (i.e. predetermined) display size and relative to the overall size of the FPD - in

response to user-manipulation of the control by which the variable data setting is adjustable. For example, when a pilot manipulates a control knob to adjust the data setting, the size of the data setting image on the display may be doubled from that in which the data setting is normally displayed on the FPD during flight or other normal operation of the aircraft. As a result of the enlarged size of the displayed data or graphic, the pilot can more easily view and enter or modify or select the new data setting. The attention of the pilot that must be directed to ensuring an accurate manually-effected adjustment of the data setting is thereby greatly reduced relative to the other tasks and operations and work load to which the pilot must still devote his or her attention. The enlarged data image is returned to its original predetermined size on the display when it is sensed that the user has discontinued manipulation of the control by which the data is entered or modified -- i.e. when it is sensed that such user-effected manual manipulation of the control has ceased. This return of the data image from its enlarged to its original or normal predetermined size may also be delayed, beyond sensing that user manipulation of the control has ceased, by a predetermined period of time. Thus, by way of illustration, the enlargement of the data image may be maintained on the FPD screen for a period of two seconds after no further manual manipulation of the data adjustment control by the user is sensed.

The Examiner-cited Feyereisen published patent application discloses an aircraft cockpit imaging display in which one or more portions or parts of the information displayed on the screen "are dynamically presented in a context sensitive manner." [See Feyereisen at paragraph 0061] More particularly, "different ones of the information displays are dynamically emphasized as a predetermined function of the current mode or phase of flight." [0062] "[A} predetermined one or more of the different information

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displays is dynamically emphasized as a function of mode or phase of flight, with different ones of the information displays being emphasized during different modes or phases of flight." [0062] "[T]he different information displays are emphasized by metamorphosis or transformation in appearance using any of an animated size, font, shading and texture." [0064]

Thus, Feyereisen teaches that temporary transformations in appearance (such as changes in size) of selected portions of the display occur in contextual response to "*the current mode or phase of flight*". (Emphasis supplied) In the present invention, on the other hand, a display-imaged user-adjustable data setting depicted on the display is transformed in size *in response to the user's manual manipulation of a control that the user manipulates to adjust that data setting*. *Nothing* in Feyereisen even remotely teaches, discloses or suggests temporary transformation or changes in the size of particular data imaged on the display in specific response to sensed user manipulation of a control operable for adjusting that data setting. Indeed, nothing in Feyereisen teaches, discloses or suggests a change in the size of particular data imaged on the display in response to *any* user action; rather, any such data display changes in Feyereisen occur *solely* in response to the aircraft's being in or entering into a "mode or phase of flight", such as "taxi, take off, cruising, approach, landing and ground phases of flight". [0062]

Each of independent claims 1 and 10 expressly recites that enlargement of the image of the data setting on the display from the initial predetermined size to the enlarged size to unambiguously direct the user's attention to the predeterminately enlarged data setting to be adjusted takes place in response to sensed manipulation by

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the user of a control for adjusting the data setting. Feyereisen fails to teach or suggest this expressly recited limitation.

In the Office Action, the Examiner states:

"It appears that the sensing an event related to flight operation inherently includes sensing user's manipulation of one of the instruments, e.g., setting altitude or speed (0062). Even if it is not, enlarging a display image responsive to sensing user manipulations is well known in the art of image display (See US 6,909,439, abstract)." (Page 3, lines 3 to 6)

First, as noted above Feyereisen quite clearly does *not* teach "sensing user's manipulation of one of the instruments", either directly or inherently. Feyereisien expressly teaches that the "metamorphosis or transformation in appearance of a relative portion of the display" is triggered by "the current mode or phase of flight", and it is not understood how such a focused and explicit teaching of *contextual* triggering could possibly be interpreted as "inherently" including displayed data transformation in response to *any* user action or activity, let alone in response to sensing that the user has manually manipulated a control for adjusting the data value that is the subject of the image being enlarged - as the claims of the instant application recite.

Moreover, the secondarily cited Amro et al. Patent No. 6,908,439 does *not* teach, as the Examiner alleges, "enlarging a display image responsive to sensing user manipulations"; rather, Amro merely teaches a system and method for opening an enlarged data window, in response to a specific user-initiated trigger defined for enlarging the data window, to facilitate stylus-based user data entry directly into the window in a PDA or other reduced-size display screen. Amro teaches that such an enlarged window for receiving data entry is opened in response to the user "tapping" with a stylus on a specified portion of the screen labeled to trigger enlargement of the window. The enlarged

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window is then removed from the screen in response to the user again "tapping" the stylus on the specified screen area labeled to trigger removal of the enlarged window. As Amro explains,

> "The mechanism of the present invention provides graphical widgets displayed on a screen. A graphical widget is a graphical input mechanism that can be resized to allow easier user input. Input may be received by the graphical widget in its reduced form, but is more difficult. These graphical widgets are displayed in a predefined size and layout in these examples. These graphical widgets are small in size and not typically suitable for user input, but when selected or tapped, a graphical widget will increase or grow in size to a predetermined percentage of the size of the screen and display a small "return" or "get back" graphical widget. This return widget is used to return the graphical widget to its original size. Alternatively, instead of selecting a return widget, the user may reselect the graphical widget to cause the graphical widget to be resized to the original size." (Col. 5, ll. 42-65).

Thus, Amro does _not_ teach or suggest enlargement of a data setting image in response to sensed user manipulation of a control operable for adjusting the data value, as the claims of the instant application recite. The Examiner's suggested combination of Amro and Feyereisen accordingly fails to remedy the deficiency of Feyereisen alone in meeting this claimed limitation. Moreover, applicant contends that there is nothing in Feyereisen, or in Amro, to suggest a combination of the two; Feyereisen is so specific in its teaching of the contextual "trigger" utilized for initiating transformation of its displayed data that it would not have been obvious, at the time of applicant's invention, for the person of skill to have considered combining the Amro and Feyereisen teachings in the absence of knowledge of applicant's disclosure. Such hindsight reconstruction is impermissible and cannot properly support a rejection of the claims based on alleged obviousness. The Examiner's profferred combination of Amro and Feyereisen is accordingly improper.

On *at least* this basis, therefore, independent claims 1 and 10 are patentable over both Feyereisen standing alone and the combination of Feyereisen and Amro.

Feyereisen alone, or the combination of Feyereisen and Amro, fail to teach or suggest the claimed invention for yet another reason. Each of independent claims 1 and 10 expressly recites that reduction of the enlarged image of the data setting on the display from the predeterminately enlarged size to the original predetermined size takes place *in response to sensing that user manipulation of the control for adjusting the data setting has ceased.* In Feyereisen, display data is metamorphosized or transformed in response to the "current" mode or phase of flight; thus, display data is returned to its original format when a *different* mode or phase is "current", i.e. display data is returned to its original size or condition when the mode or phase of flight that triggered its transformation is no longer the "current" mode or phase of flight. Flight context alone determines the form in which the screen data is presented on the display.

Each of independent claims 1 and 10, on the other hand, expressly recites that reduction of the enlarged image of the data setting on the display from the predeterminately enlarged size to the original predetermined size takes place *in response to sensing that user manipulation of the control for adjusting the data setting has ceased.* Nothing in Feyereisen even remotely teaches, discloses or suggests that, as in the present invention, reduction of the enlarged data setting image size is triggered in response to sensing that user manipulation of the control for adjusting the data setting has ceased.

In this regard, too, Amro fails to supply any teaching or suggestion as to that which Feyereisen lacks. In Amro, reduction or elimination of the enlarged data entry window is triggered by a specific user action - namely, user entry of a "close window"

command by, e.g., "tapping" with a stylus at a predefined location on the PDA screen. Amro thus fails to teach or suggest, as in the claimed invention, reducing the enlarged size of the data setting on the display in response to sensing that user manipulation of the control by which the data setting is adjusted has ceased. Accordingly, even if, *arguendo*, a combination of Amro and Feyereisen can properly be made (and applicant maintains that the combination is *not* proper), that combination fails to teach reduction of the enlarged image of the data setting on the display from the predeterminately enlarged size to the original predetermined size *in response to sensing that user manipulation of the control for adjusting the data setting has ceased*, as applicant's claims require.

For *at least* this reason, too, independent claims 1 and 10 are therefore patentable over both Feyereisen standing alone and the combination of Feyereisen and Amro.

Claims 2 to 9 and 11 to 19 respectively depend from independent claims 1 and 10, and are deemed patentable for at least the reasons discussed above with respect to claims 1 and 10. Applicant also points out that, contrary to the Examiner's assertion in the Office Action with respect to claims 7 and 16, Fig. 3 of Feyereisen does <u>not</u> show or suggest any translucence of one image overlying another so as to allow the underlying image to be viewed, as is recited in each of claims 7 and 16.
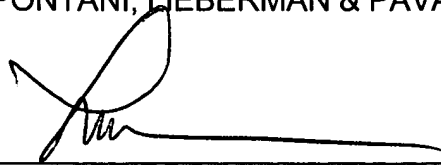
For all of the foregoing reasons, applicant submits that claims 1 through 19 now pending in the application are in condition for allowance and such action, and early passage of the case to issue, are once more requested.

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In the event that any fees or charges are required at this time in connection with this application, the same may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

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